TITLE: Method for preventing dielectric cracking of capacitors by employing
spacer structure to cover the shape corner at the bottom of stacked **capacitor**
sidewall

INVENTOR: CHIU, R; LE, C ; WU, D

PATENT-ASSIGNEE: UNITED MICROELECTRONICS CORP [UNMIN]

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PATENT-FAMILY:

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APPLICATION-DATA:

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INT-CL (IPC): H01L027/108

ABSTRACTED-PUB-NO: TW 381343A

BASIC-ABSTRACT: NOVELTY - Method for preventing dielectric cracking of
capacitors which has the following steps: firstly, providing a semiconductor
substrate on which formed a protruded stacked **capacitor** structure; then,
forming the **first dielectric** on the stacked capacitors and semiconductor
substrate with the material as BPSG, SOG or PSG; applying annealing process
with the temperature range between 800-900 degree C; then, applying back
etching process to etch the **first dielectric** and forming the spacer structure

on sidewall of stacked capacitors wherein the spacer is the feature of the
present invention which can cover the sharp corner at the bottom of stacked
capacitor sidewall to prevent the dielectric cracking in following deposition;
then, forming the **second dielectric** on the spacer and stacked **capacitor** with
the material as **silicon dioxide** and with the forming method as plasma enhanced
chemical vapor deposition.

CHOSEN-DRAWING: Dwg.1/2

TITLE-TERMS:
METHOD PREVENT DIELECTRIC CRACK **CAPACITOR** EMPLOY SPACE STRUCTURE COVER SHAPE
CORNER BOTTOM STACK **CAPACITOR** SIDEWALL

DERWENT-CLASS: L03 U13 U14

CPI-CODES: L04-C14A;

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